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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/932,505

08/17/2001

Jeffrey Jay Jacobsen

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6949

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09/12/2002

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EXAMINER

CHOWDHURY, TARIFUR RASHID

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 09/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary

Application No.

09/932,505

Applicant(s)

JACOBSEN ET AL.

Examiner

Tarifur R Chowdhury

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-9,23-27,43-52,55-62 and 67-74 is/are pending in the application.
- 4a) Of the above claim(s) 67-74 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-9,23-27,43-52 and 55-62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

2. **Claims 1, 4-9, 23-27, 43-52 and 55-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Yamada et al (hereinafter Yamada), PN 5,453,864.**

3. The admitted prior art described in page 1 of the present application discloses that fabrication of a display panel is well known in the art and display panels may be comprised of active matrix or passive matrix panels wherein the active and passive matrix panels may be either transmissive or reflective.

The admitted prior art described in pages 3-5 and shown in Figures 1(a) – 1(d) of the present application further discloses that the display device comprising:

- a substrate (12)
 - an active or passive matrix display backplane ((10) coupled to the substrate;
- and

- the active or passive matrix display backplane comprises a plurality of blocks (14) that are deposited onto the substrate (12).

The admitted prior art described in page 2 of the present application also discloses that the reflective displays typically comprise *single crystal silicon* integrated substrates that have reflective pixels.

Only difference between the display device of the admitted prior art compared to the present invention is that the substrate is flexible and thus the display device is flexible.

Yamada teaches in column 1, lines 19-34, that liquid crystal display device having a flexible substrate are generally light, not easily broken, and are therefore more transportable. Further, using a flexible substrate would provide a flexible device.

Yamada is evidence that ordinary workers in the art of liquid crystal would find a reason, suggestion or motivation to use a flexible substrate.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the display device of the admitted prior art such as using a flexible substrate in the device of the admitted prior art so that a flexible display device that provides a lighter and more dependable display is obtained.

Further, using different shaped blocks is common and known in the art and to optimize device performance would have been obvious to use.

Accordingly, claims 1, 23, 55 and 56 would have been obvious.

As to claims 4, 5, 24, 25 and 57, since the modified display device is flexible, it would have been obvious to one of ordinary skill in the art that it will conform to a desired shape of an object which is either planar or non-planar when it is attached to the object.

As to claims 6, 26 and 58, the admitted prior art described in page 3, lines 19-20 of the present application also discloses that each blocks may contain driver circuitry for driving a pixel electrode.

As to claims 7, 27 and 59, coupling a display generation substrate to the active or passive matrix substrate is common and known in the art and would have been obvious to do to avail a proven technology.

As to claims 8 and 60, the admitted prior art described in page 3, lines 11-13 of the present application discloses that the backplane comprises electrodes.

As to claims 9 and 61, it is clear from the figures shown in the admitted prior art of the present application that the active/passive matrix display is conformal.

As to claim 62, the admitted prior art shown in Figures 1(a) – 1(d) of the present application clearly shows that the substrate has at least one recessed region wherein reflective blocks are deposited thus making the recessed region reflective.

As to claim 43, forming plurality of display devices on a substrate is common and known in the art and thus would have been obvious to optimize device performance.

As to claim 44, assembling each of the display components into a separate display device is common and known in the art and to avail a proven technology would have been obvious to do.

As to claim 45, the admitted prior art shown in Figures 1(a) – 1(d) of the present application clearly shows that the display device components has a backplane comprising a plurality of shaped blocks which are deposited onto the substrate.

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As to claim 46, since the modified display device is flexible, it would have been obvious to one of ordinary skill in the art that it will conform to a desired shape of an object which is either planar or non-planar when it is attached to the object

As to claim 47, the admitted prior art described in page 3, lines 19-20 of the present application also discloses that each blocks may contain driver circuitry for driving a pixel electrode.

As to claim 48, coupling a display generation substrate to the active or passive matrix substrate is common and known in the art and would have been obvious to do to avail a proven technology.

As to claim 49, the admitted prior art described in page 3, lines 11-13 of the present application discloses that the backplane comprises electrodes.

As to claims 50 and 51, the admitted prior art described in page 1 of the present application discloses that the display panels may be comprised of active matrix or passive matrix panels.

As to claim 52, the admitted prior art shown in Figures 1(a)-1(d) clearly shows that the second length of the substrate is continuous.

Response to Arguments

4. Applicant's arguments filed on 08/09/2002 have been fully considered but they are not persuasive.

5. In response to applicant's argument that the substrate of the admitted prior art is related to a rigid substrate and Yamada discloses the use of a flexible substrate and does not disclose the use of any blocks, the combination is not proper, it is respectfully pointed out to applicant that, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the

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claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Yamada teaches the use of flexible substrate. It should also be noted that the admitted prior art does not exclude the use of flexible substrate.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (703) 308-4115. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William L. Sikes can be reached on (703) 305-4842. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

TRC
September 10, 2002


William L. Sikes
Supervisory Patent Examiner
Technology Center 2800